



**OFFICE OF THE DIRECTOR
DEFENSE RESEARCH AND ENGINEERING**

15 December 2000

MEMORANDUM FOR: SEE DISTRIBUTION

SUBJECT: Call for FY 2002 Distributed Centers Proposals

High performance computing (HPC) is an important tool for our scientists and engineers as they seek to provide technological advantage to the warfighter. The knowledge gained and the resulting high fidelity models and simulation enabled by HPC have been growing rapidly. Service and Agency validated requirements to support our scientists and engineers exceed our capabilities. To help address our users' HPC needs, the High Performance Computing Modernization Program (HPCMP) operates four major shared resource centers (MSRCs) and provides high-speed networking services to connect the centers to each other and to the users. To supplement the MSRCs, the HPCMP established distributed centers (DCs) throughout the Department of Defense (DoD).

The distributed centers contain an array of scientific computing resources to serve scientists and engineers working in DoD science and technology and test and evaluation programs. These centers are tailored to address a variety of problems including real-time data processing, signal image processing, embedded system applications, and classified HPC applications. Commercially available HPC systems are funded for DCs where there is a significant advantage to having a local system and a potential for advancing DoD applications using investments in HPC capabilities and resources.

We request your assistance in identifying the highest priority requirements – either upgrades to HPC resources at existing DCs or the establishment of new centers. Based upon current budget projections, we anticipate the selection of approximately three to five proposals. Subject to availability of funds and time criticality of selected proposals, up to two proposals may be funded early (late FY 2001). Funding requests for each center should not exceed \$4M and should not exceed one fiscal year. [Please note that resources acquired as part of the DC selection process remain under the reallocation and redistribution authority of the Deputy Under Secretary of Defense (Science and Technology).]

The attached package, containing the call for proposals for distributed centers, details the submission, evaluation, and selection process. As part of this process, we request your assistance to ensure that the appropriate organizations are made aware of this opportunity. The FY 2002 Request for Proposals, Evaluation Criteria, and Process (Attachment 1) specifies the technical and managerial criteria used in evaluating the proposals. It also provides milestones and outlines the selection process.

The Services/Agencies should aggregate the science and technology and test and evaluation nominations and prioritize them as outlined in Attachment 1. An important part of the selection process is Service/Agency mission priorities. The Service/Agency Executives' prioritization of their site nominations is the most important indicator of mission priority. Please allow sufficient time to review and prioritize your organization's proposals before the proposals are due to the High Performance Computing Modernization Office (HPCMO). The HPCMO will take no action on proposals received without Service/Agency Executives' prioritization.

Please submit your prioritized FY 2002 distributed centers proposals in one original, 10 **unbound** copies, and one 3.5" PC-based diskette, ZIP or CD-Rom, in Microsoft Word 95 (or higher) format. Send the complete packets to arrive no later than Wednesday, 25 April 2001 to the following address:

DoD High Performance Computing Modernization Office
ATTN: Shared Resource Centers Project Manager
1010 North Glebe Road, Suite 510
Arlington, VA 22201-8205

Our point of contact for this activity is the Shared Resource Centers Project Manager, Mr. John Baird. He may be reached at baird@hpcmo.hpc.mil or 703-812-8205.

/Signed/

Delores M. Etter
Deputy Under Secretary of Defense
(Science and Technology)

/Signed

Cray J. Henry
Director
High Performance Computing
Modernization Program

Attachments:

1. The *FY 2002 Request for Proposals, Evaluation Criteria, and Process*
2. Document Formats and Checklist

DISTRIBUTION:

ASSISTANT SECRETARY OF DEFENSE (COMMAND, CONTROL, COMMUNICATIONS
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FORCE

cc:

High Performance Computing Advisory Panel Principals

ATTACHMENT 1

FY 2002

Request for Proposals, Evaluation Criteria, and Process

This document outlines the High Performance Computing Modernization Program (HPCMP) distributed centers (DCs) proposal evaluation criteria and process for sites to be implemented in FY 2002. Process sections are interspersed throughout the document to illustrate how the criteria are used.

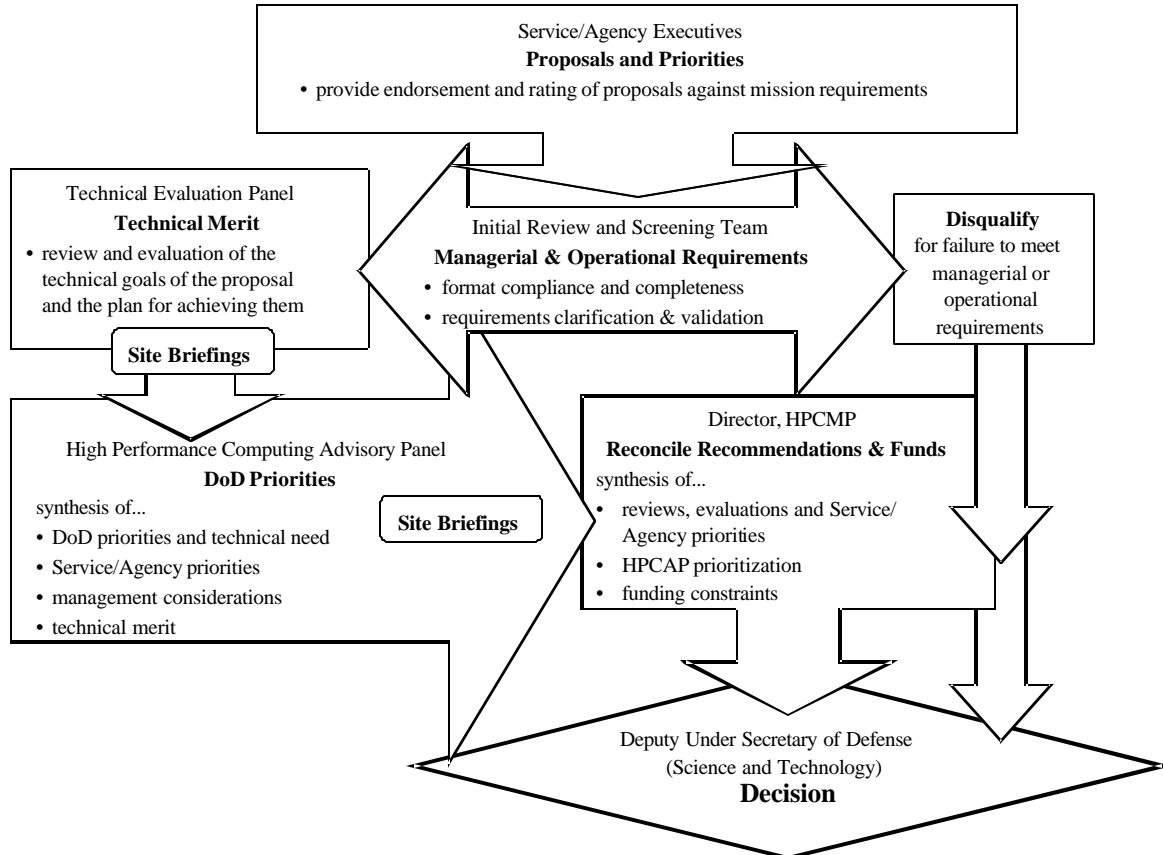
PROCESS

Request for Proposals

The Office of the Deputy Under Secretary of Defense (Science and Technology) [(DUSD(S&T)] solicits proposals from Services/ Agencies whose sites have requirements for local high performance computing (HPC) resources. The request for proposals includes a copy of the goals for the DCs as well as the technical selection criteria and managerial and operational requirements. It is distributed as follows:

- The DUSD(S&T) sends a formal memorandum announcing the call for proposals to the Service/Agency Executives. The High Performance Computing Advisory Panel (HPCAP) principals receive a courtesy copy of this memo.
- Informal announcements are sent to all of the HPC mailing lists and placed on the HPCMP World Wide Web page at <http://www.hpcmo.hpc.mil/>.

The figure below illustrates the selection and decision process.



1. Purpose. The High Performance Computing Modernization Office (HPCMO) is soliciting proposals for upgrades to existing distributed centers (DCs) or for establishing new centers. Proposals are solicited for implementation in FY 2002. Only proposals that are primarily for high performance computing (HPC) resources will be considered; proposals strictly for storage or visualization will not be considered.

Distributed centers are established to support the overall program vision of applying HPC computation and communications to maintain technological superiority of warfighting systems. The goals for the distributed centers are to:

- support DoD mission requirements at selected sites where there is potential for advancing DoD applications through use of HPC;
- complement, balance, and supplement the major shared resource centers (MSRCs) by enabling local expertise to be developed and leveraged by the larger DoD community;
- execute small and medium-sized HPC applications, leveraging MSRCs that execute the large applications;
- promote the development of new software tools and application area specific software;
- foster reuse of software tools and application software components as well as appropriate use of communications standards, interface standards, and graphics visualization standards across DoD;
- leverage HPC expertise and assets located in industry, academia and other federal laboratories in addition to DoD facilities; and
- apply HPC hardware and software as rapidly as it becomes commercially available.

2. Proposal Evaluation. Proposals will be evaluated based on three factors:

- validated requirements for DoD mission support priorities,
- technical selection criteria, and
- the proposing center's willingness and ability to meet all of the HPCMO managerial and operational requirements.

PROCESS

**Service/Agency Executive Nomination
Proposals and Priorities**

**Service/Agency Executives
Proposals and Priorities**

- provide endorsement and rating of proposals against mission requirements

Proposals are to be submitted to the HPCMO by the Service/Agency Executives.

Prior to proposal review by the HPCMO, the Service/Agency Executives will prioritize the proposals from their subordinate sites in accordance with the call's guidelines and Service/Agency mission priorities. Service/Agency Executives will ensure that the proposals and supporting documents are complete and accurate. Proposals not prioritized should not be forward to the HPCMO. The HPCMO will evaluate only proposals prioritized and transmitted via memorandum by one authorized Executive per Service or Agency. Proposals submitted not meeting this criterion will be disqualified from further consideration and HPCMO will take no action on proposals received without Service/Agency Executives' prioritization.

Service/Agency Executives rate these proposals in descending order of priority. The higher the rating, the higher the priority the Executive assigns to the proposal. The sum of the ratings of all proposals submitted by each Executive must equal 100 points. The rating of science and technology and test and evaluation proposals will be aggregated so that there is one prioritized listing of all proposals submitted by each Executive.

The consolidated packets from the Services/Agencies must be submitted in one original, 10 unbound copies and one 3.5" PC-based diskette, ZIP or CD-Rom in Microsoft Word 95 (or higher) format. The Service/Agency Executives must submit proposals to the HPMCO.

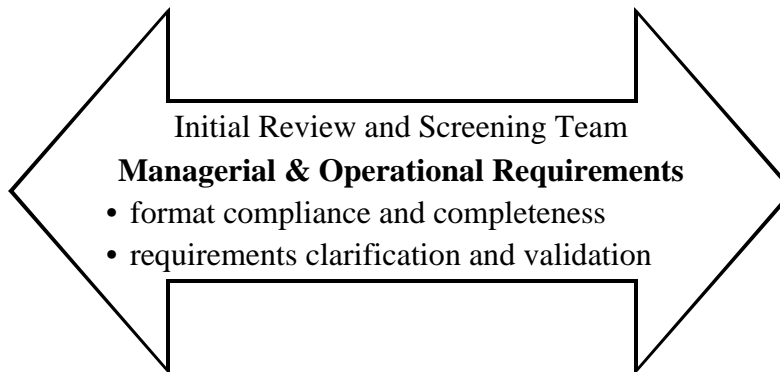
Once received by the HPCMO, the proposals will be evaluated based on the criteria outlined in this document.

2.1 Evaluation Factor 1: Service/Agency Priorities.

Prior to proposal evaluation by the HPCMO, the Service/Agency Executives will rate/prioritize the proposals from their respective organizations. Priorities will be assigned based upon Service/Agency requirements.

PROCESS

**HPCMO Initial Review and Screening
Managerial and Operational Requirements**



The HPCMO staff will conduct an initial review and screening of the proposals to ensure that they are viable prior to detailed evaluation (i.e., that they meet guidelines and criteria specified by the program and outlined in the request for proposals). This will include a comparison of the sites' proposed requirements to the validated requirements listed in the program's requirements database to ensure consistency. If there are any proposal deficiencies identified during this phase of the process, the proposal will be disqualified from further consideration and returned to the proposing site. No further action will be taken by the HPCMO for such proposals.

The Office of the Deputy Under Secretary of Defense (Science and Technology) may conduct site visits to verify management considerations or mission relevancy for selecting the proposed site. Additionally, site representatives may be required to brief the HPCMO Initial Review and Screening Team at the HPCMO or designated location.

2.2 Evaluation Factor 2: HPCMO Managerial and Operational Requirements.

Once the HPCMO receives the Executive's memorandum and nominated proposals, the staff will conduct an initial review and screening of the proposals to ensure that they are viable prior to detailed evaluation. Each proposal will be evaluated against the managerial and operational requirements listed in Table 1. In order to be considered, proposals must meet all of the requirements. Site representatives will be informed of rejected proposals as soon as practicable and no further action will be taken by the HPCMO in the processing of such proposals.

Table 1. Distributed Centers Managerial and Operational Requirements

1	DCs must demonstrate a genuine need for HPC capability. They must show validated requirements in the HPCMP requirements database to support their proposal and cite specific computational projects in the HPCMP requirements database.
2	DCs must be willing to support non-local requirements.
3	DCs must agree to pay full operations costs including all hardware and software maintenance costs.
4	DCs must have a viable local acquisition strategy or acquisition plan in place prior to becoming a DC. <i>Please note that sites selected under this call must receive prior written approval from the HPCMP Acquisition Manager if they do not intend to use the HPCMP Blanket Purchase Agreements (BPAs) available at the time funds are transferred. This approval must be requested prior to submitting the Procurement and Initial Implementation Plan (PIIP). (The due date for the PIIP is provided at paragraph 6, "FY 2002 Schedule".)</i>
5	DCs must acquire commercial systems. (See Federal Acquisition Regulations, Subpart 2.1 "commercial items" and "commercial components".)
6	The size of the site's request will be modest (< \$4M each, one year funding).
7	Sites must justify why they qualify for corporate DoD support. Individual project objectives alone are not sufficient justification.
8	There must be a host or parent organization management commitment to meeting the obligations of a DC. A memorandum of support from the commander of the site's host or parent organization must be submitted with each proposal, which explicitly commits to providing operations and sustainment funding and other necessary support for the center.

PROCESS**Technical Evaluation Panel Technical Merit****Technical Evaluation Panel****Technical Merit**

- review and evaluation of the technical goals of the proposal and the plan for achieving them

A detailed review and evaluation of the proposals against the technical selection criteria will be performed. A Technical Evaluation Panel (TEP) will be established by the HPCMO to evaluate the technical merit of the proposals. The evaluation panel will consist of members of the HPCMO staff and representatives from the HPC community.

The DUSD(S&T) or her designee may conduct site visits to verify management considerations, technical considerations, or mission relevancy during the evaluation process for the proposed site. Additionally, site representatives may be required to brief the Technical Evaluation Panel at the HPCMO or a designated location.

2.3 Evaluation Factor 3: Technical Selection Criteria.

The third factor, the technical criteria, will ensure that any center recommended has demonstrated the technical capability essential to execute the distributed centers' objectives. These criteria are listed in Table 2. The maximum number of evaluation points is listed for each criterion. In several cases, there are a minimum number of points required to be further considered in the selection process. If the minimum number of required points is not met, the proposal will be eliminated from further consideration.

The first three criteria are the most important as apparent by the number of evaluation points assigned. It is not expected that all proposals will have high ratings in all of the first three criteria. The first criterion emphasizes development of new technology in support of DoD missions. The second emphasizes application of advanced technology that may have been developed elsewhere in support of the DoD mission. The third criterion is to identify HPC requirements that cannot be reasonably met at existing major shared resource centers and distributed centers.

Table 2. Distributed Centers Technical Selection Criteria

	Criterion Example/Description	Maximum Points	Minimum Points
1	Innovative application of HPC in support of the DoD mission.	20	0
	Use of HPC systems where other methods (such as live fire or open air testing) were previously used.		
2	Application of existing HPC technology which will substantially improve existing mission areas.	20	0
	Employing a process upgrade from desktop to Gflop.		
3	Added value to DoD of having a local system relative to using remote systems (e.g., MSRCs or existing DCs).	20	5
	HPC requirements that ✓ cannot be addressed using remote assets (such as embedded systems, hardware and weapons systems in-the-loop, real-time integrated test and evaluation) or ✓ support pioneer and research work in leading-edge technology, testbeds and prototypes.		
4	Commitment to participate in the HPC software reuse activity and to adopt and use standards of the DoD HPC community.	10	5
	Evidence of awareness and commitment to use DoD and commercial standards and practices where appropriate.		
5	Demonstrated history of technology transfer to the DoD HPC community or a comprehensive Technology Transfer Plan for such.	10	0
	Documented successes (such as workshops, published papers, symposia, etc.) in transferring technology to other activities or a systematic plan to accomplish technology transfer. If the latter, the plan must be provided with the proposal.		
6	Ability and willingness to: (a) evaluate advanced computing and communications technologies or (b) develop, distribute, and maintain new software useful to other DoD users with similar applications.	10	0
	Pioneer work with industry, other government agencies, and academia (such as research in leading-edge chip and network technology) transitioned to MSRCs and other DCs.		
7	Local expertise in the use of HPC resources in important DoD applications.	10	5
	Local site must have mission core competency as well as HPC system integration expertise.		
Total		100	

PROCESS

**High Performance Computing Advisory Panel
DoD Priorities**

High Performance Computing Advisory
Panel
DoD Priorities
synthesis of...

- DoD priorities and technical need
- Service/Agency priorities
- management considerations
- technical merit

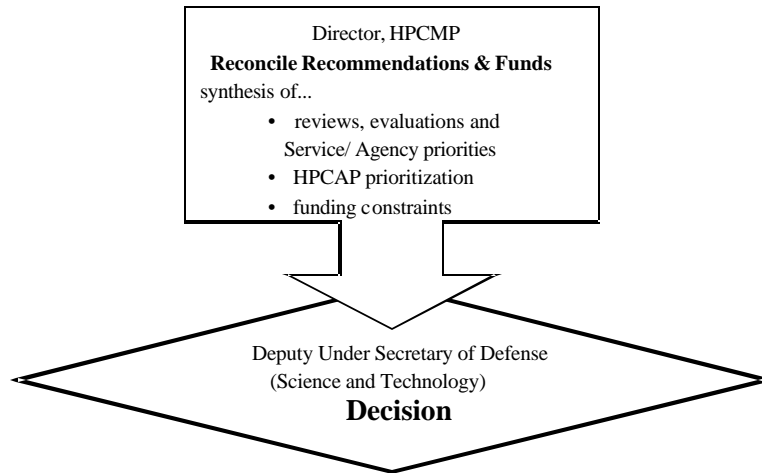
The HPCAP will categorize all proposals into three rating groups: high, medium and low. The rating will be based on DoD mission priorities, mission support priorities indicated by the Service/Agency Executives, HPCMO managerial and operational requirements, and the technical evaluation results. Special attention will be placed on ensuring that distributed centers address areas of critical technology need. Past performance of sites previously selected as distributed centers will be considered by the HPCAP. Additionally, site representatives may be required to brief the HPCAP at the HPCMO or at a designated location.

2.4 High Performance Computing Advisory Panel.

The High Performance Computing Advisory Panel will categorize proposals into three rating groups; high, medium and low. The categorization will be based on DoD mission and mission support priorities, the results of the management review, and the technical evaluation. Special attention will be placed on ensuring that distributed centers address areas of critical technology need. Those sites previously funded as HPCMP distributed centers will also be evaluated based on past performance.

PROCESS

Director, HPCMP Analysis and Recommendation Deputy Under Secretary of Defense (Science and Technology) Decision



The Director, HPCMP will review the HPCAP ranking, along with all previous reviews and evaluations conducted as part of the selection process against approved funding available and provide the DUSD(S&T) with a summary of evaluations and recommended selections and funding levels. The DUSD(S&T) will determine the number of sites selected and the level of funding to be provided.

3. Deputy Under Secretary of Defense (Science and Technology) Decision.

The DUSD(S&T) will make the final decision on sites selected and funding levels.

Announcement of selections will be made to various organizations (Congress, Service/Agency Executives, Proposal Points of Contact, the media, and such) at the discretion of the DUSD(S&T).

4. Proposal Submission.

Proposals must include:

a. Memorandum of commitment from commander (or equivalent) of host or parent organization. The memorandum must state explicitly that the parent site or organization commits to providing operations and sustainment funding and other necessary support for the center for the three fiscal years subsequent to delivery of the resources acquired under the proposal and that the site's proposal is endorsed and supported.

b. Summary Sheet. A three page summary sheet should be affixed to the front of the proposal. (Format is provided at Attachment 2.)

c. Proposal

Proposals must fully address the criteria listed in Tables 1 and 2. Each criterion should be addressed separately and in the order shown at subparagraphs 5 and 6 below. Proposals should be no more than 20 pages, single-spaced with one-inch margins. The font should be Times New Roman 12. The proposal format is outlined below.

- (1) Executive summary - no more than one page
- (2) Description of current operating environment
 - Short description of the site and existing HPC resources/capabilities
 - Network bandwidth
 - Number of local users
 - How HPC is presently funded
- (3) Description of the critical technology need to be addressed
 - Why is the technology important to DoD? How will the warfighter benefit?
 - Description of how HPC will address this need.
- (4) Description of commercial resources to be acquired
 - Hardware requirements
 - Software requirements
 - Networking requirements
 - Mass storage requirements
 - Visualization requirements
 - Other requirements
- (5) Discussion of how the site meets the following managerial criteria
 - a. Genuine need for HPC capability
 - b. Willingness to support non-local requirements
 - Projected user base
 - Recommended allocation of resources:
 - Internal allocation
 - Allocation to other DoD HPCMP users

- c. Ability to pay full operations costs including all hardware and software maintenance costs

System cost breakdown

Center's budget and plans for funding:

	FY 2002	FY 2003	FY 2004
Hardware Maintenance			
Software Maintenance			
Government Personnel Cost			
Contractor Personnel Cost			
Facilities			
Supplies			
Travel			
Communications			
Training			
<i>Total</i>			

Brief description of funding sources for items above

- d. Description of local acquisition strategy or acquisition plan and associated milestones [e.g., HPCMP blanket purchase agreements (BPAs), an existing HPC contract, new request for proposals (RFP), integration services contract]. Different strategies may be needed for the different resources to be acquired. If so, describe each strategy.
- e. Source of pricing for other than HPCMP BPA acquisitions. (Provide a copy of all quotes and special considerations as attachments to your proposal and cite the source and date of quote here.)
- f. Procurement risk analysis and specific risk mitigation planned
- (6) Technical criteria - Discussion of the site's conformance to each criterion
- Innovative application of HPC in support of the DoD mission
 - Application of existing HPC technology which will substantially improve existing mission areas
 - Added value to DoD of having a local system relative to using remote systems
 - Commitment to participate in the HPC software reuse activity and to adopt and use standards of the DoD HPC community
 - Demonstrated history of technology transfer or comprehensive Technology Transfer Plan
 - Ability and willingness to evaluate advanced computing and communications technologies or to develop, distribute, and maintain new software useful to other DoD users with similar applications
 - Local expertise in the use of HPC resources in important DoD applications

d. Supporting Documents

In addition to the above, proposing sites must submit the following as part of the proposal:

- (1) Requirements Analysis and Analysis of Alternatives
 - (2) Proposed Performance Metrics
 - (3) Center Organization and Resumes of Key Personnel
- (Formats are provided at Attachment 2.)

5. Post Selection Requirements.

Each site selected will be required to submit a security plan, test and evaluation master plan (TEMP) addendum, procurement and initial implementation plan (PIIP), and a life cycle cost estimate (LCCE) to the HPCMO. These documents' suspense dates are shown at paragraph 6, below. Formats are available on the HPCMP WWW page at <http://www.hpcmo.hpc.mil>.

Distributed centers selected for funding will be expected to obligate funds by the end of 3QFY2002 and expend/disburse them by the end of 4QFY2002.

Sites selected as FY 2002 distributed centers will be required to sign a memorandum of agreement, called Terms of Reference (TOR), with the HPCMO. A sample TOR for distributed centers is available on the HPCMP WWW page at <http://www.hpcmo.hpc.mil>. The TOR delineates policy and obligations incurred by sites selected for funding as HPCMP distributed centers.

In FY 2004, distributed centers selected will undergo a post-deployment evaluation and assessment process (P-DEAP). The P-DEAP will appraise each site's progress and performance in meeting the goals of its original proposal and its responsibilities as a DoD HPCMP distributed center. The P-DEAP is part of the required post-implementation review process to evaluate HPCMP information technology investments under the Government Performance and Results Act and Clinger-Cohen Act.

6. FY 2002 Schedule.

Event/Requirement	Due Date
For Proposals	
Proposal Call	December 2000
<i>Proposal and Supporting Documents Submission</i>	<i>Wednesday, 25 April 2001</i>
Proposal Evaluation Complete	4QFY2001
DUSD(S&T) Decision and Announcement	1QFY2002

Event/Requirement	Due Date
For Selected FY 2002 Distributed Centers	
<i>Required Documents</i>	
Signed Terms of Reference	1QFY2002
Procurement and Initial Implementation Plan (PIIP)	1QFY2002
Buy List	1QFY2002
Life Cycle Cost Estimate (LCCE)	1QFY2002
TEMP Addendum	2QFY2002
Security Plan Addendum	2QFY2002
<i>Fiscal and Procurement Events</i>	
Funding Released	2QFY2002
Obligation of Funds	3QFY2002
Expenditure/Disbursement of Funds	4QFY2002

ATTACHMENT 2

FY 2002

Document Formats and Checklist

Proposal Summary Sheet

Requirements Analysis and Analysis of Alternatives

Proposed Performance Metrics

Center Organization and Resumes of Key Personnel

Proposal Package Checklist

Proposal Summary Sheet

Proposal Summary
for
Site Name)

Primary Point of Contact: _____

Address: _____

Voice Phone Number: _____ FAX Phone Number: _____

E-Mail Address: _____

Current System(s):

Peak computational rate: _____ Gflops

Primary memory: _____ GBytes

Secondary storage: _____ GBytes

Proposed Acquisition/Expansion: **(this proposal ONLY, NOT total requirements):**

Peak computational rate: _____ Gflops

Primary memory: _____ GBytes

Secondary storage: _____ GBytes

DoD Mission Supported: _____

HPC Computational Technology Area(s) Supported (CFD, CSM, FMS, etc.):" _____

Principal System Applications (Purpose of the system):

Benefits (Impact on warfighter): _____

Proposed percentage of center resources reserved for local use: _____%

Proposed percentage of center resources reserved for non-local DoD-wide use: _____%

Wide-area networking requirements: _____

Acquisition strategy summary: (Brief description of acquisition strategy.)

Cost Breakdown:

Category	Item Description	Proposed Cost to HPCMP	Site Costs
Computational system breakdown	include # of processors and type, etc.		
Other hardware breakdown	include type (e.g., mass storage, networking, visualization) and function, etc.		
Hardware Total			
Software breakdown	include category and version, etc.		
Software Total			
Total			

Impact to DoD if not funded: _____

Other Contact Information (Here provide the next three levels of supervision or command as they pertain to the point of contact (e.g., Division Chief, Lab Director, Installation Commander):

Point of Contact/Position: _____

Voice Phone Number: _____ FAX Phone Number: _____

E-Mail Address: _____

Point of Contact/Position: _____

Voice Phone Number: _____ FAX Phone Number: _____

E-Mail Address: _____

Point of Contact/Position: _____

Voice Phone Number: _____ FAX Phone Number: _____

E-Mail Address: _____

Requirements Analysis and Analysis of Alternatives Format

Requirements Analysis and Analysis of Alternatives
for
Site Name

1. Description of the Requirement. This section includes:

- a. Mission needs expressed in the form of opportunities for increased economy and efficiency, new or changed program requirements, or deficiencies in existing capabilities.
- b. Description of requirements in terms of functions to be performed and performance to be achieved, unless a more restrictive statement of requirements is necessary to satisfy the needs.
- c. Description of a typical or average system configuration that is anticipated will meet the requirement.
- d. Documentation of the quantitative and qualitative requirements that must be met and why those requirements are necessary to meet the mission needs. These requirements should be consistent with the set of requirements documented for the organization in the 2001 update of its HPC requirements. Specific computational projects that justify the proposal and that are documented in the HPCMO requirements database must be cited.
- e. Documentation of additional capabilities to be used in support of separate missions by other DoD activities.

2. Compatibility-Limited Requirements. These requirements are limited to satisfying technical or operational needs and are justified on the basis of at least one of the following:

- a. A technical or operational requirement for compatibility when adding resources to, or replacing a portion of, an installed base or resources, and a determination that replacing additional portions of the installed base to avoid compatibility-limited requirements is not disadvantageous.
- b. A determination that the risk and impact of a conversion failure on critical mission needs would be so great that acquiring non-compatible resources is not a feasible alternative.

3. Location, Space, and Environmental Requirements. This section includes a description of where the requirements exist and any special considerations that must be met in the way of space or environmental conditions resulting from the requirement's location or the equipment expected to satisfy the requirement.

4. Security Requirements. These requirements are necessary to protect classified and sensitive information by listing the potential threats/hazards and describing the measures needed to provide protection.

5. Critical Operational Issues. Summarize the performance requirements described in sections 1 through 4, above, in measurable terms and specify the minimum acceptable values required. These are your critical operational issues (COIs). They must be directly traceable to the critical technology needs described in your proposal. [See attachment 1, paragraph 4c(3).]

6. Workload and Related Requirements. These requirements include:

- a. projected processing, storage, data entry, communications, and support services workload requirements over the system life;
- b. expandability requirements;
- c. a performance evaluation of currently installed high performance computing resources; and
- d. contingency requirements for those resources whose loss or failure would prevent mission accomplishment.

7. System Life. The system life is usually stated in months. For example, a 5-year system life would be stated as 60 months. The following factors should be considered when establishing the system life:

- a. the period of time the resources will satisfy the needs of the user;
- b. the rate at which technology is expected to advance;
- c. the probability of continued availability of support items such as maintenance, spare parts, and software support;
- d. the period of time required to accomplish subsequent acquisitions to meet the requirement, i.e., acquisition lead time; and
- e. other known requirements that can be met by reassignment within the agency or reuse within the government once the resources no longer meet the needs of the initial user.

7. Constraints. Describe underlying assumptions regarding personnel, funding, technical constraints, and customer base as they apply to the high performance computing capability required and the continued management and operations of the high performance computing environment.**8. Operational concept.** Summarize the organizational and operational plan for the proposed system capability. Discuss how the capability will fit into the overall organizational structure and functions.**9. Alternatives.** Consider not less than three alternatives. (One alternative must be using an MRSC to accomplish the work. The second alternative must be using another site engaged in like work.)

- a. Description of Alternatives. Show the impact of changes at the margin in performance and mission satisfaction based on the COIs described in 5, above. Describe the alternatives investigated in the analysis. Clearly define the alternatives to the status quo for which costs and benefits are being estimated.
- b. Analysis of Alternatives. Estimate on a year-by-year basis the costs and benefits for each alternative. Explain the basis for the cost estimates; assess the level of uncertainty in the estimates. Specify the types of benefits (cost savings, mission enhancement, other) expected from each alternative and quantify the extent of benefit; clearly explain how the alternatives will lead to the realization of those benefits.

- c. **Summary of Results.** Summarize the major findings of the analysis. Highlight factors affecting the acceptability and affordability of the alternatives, both individually and in relation to one another.

Proposed Performance Metrics Format

Proposed Performance Metrics

for

Site Name

Please refer to *Performance Based Management: Eight Steps to Develop and Use Information Technology Performance Measures Effectively*, GSA, undated,

Available for viewing at <http://www.itpolicy.gsa.gov/mkm/pathways/8-steps.htm> or for downloading at <http://www.itpolicy.gsa.gov/mkm/pathways/pm-guide.exe>.

Additional guidance is available at <http://www.itpolicy.gsa.gov/mkm/pathways/pathways.htm>

1. Site's Mission and Vision

2. Site-Level Goals (as described in the site's proposal)

3. Performance Details

Measure 1 - DoD mission improvement. (Technical Selection Criteria 1 & 2, Table 2)

Title:	
Description:	
Metric:	
The measure is:	
The target is:	
Data Source:	
Report Frequency:	

Measure 2 - Added value to DoD of local system. (Technical Selection Criterion 3, Table 2)

Title:	
Description:	
Metric:	
The measure is:	
The target is:	
Data Source:	
Report Frequency:	

Measure 3 - Technology transfer. (Technical Selection Criterion 5, Table 2)

	Title:	
	Description:	
	Metric:	
	The measure is:	
	The target is:	
	Data Source:	
	Report Frequency:	

Measure 4 - HPC evaluation and advancement. (Technical Selection Criteria 4-6, Table 2)

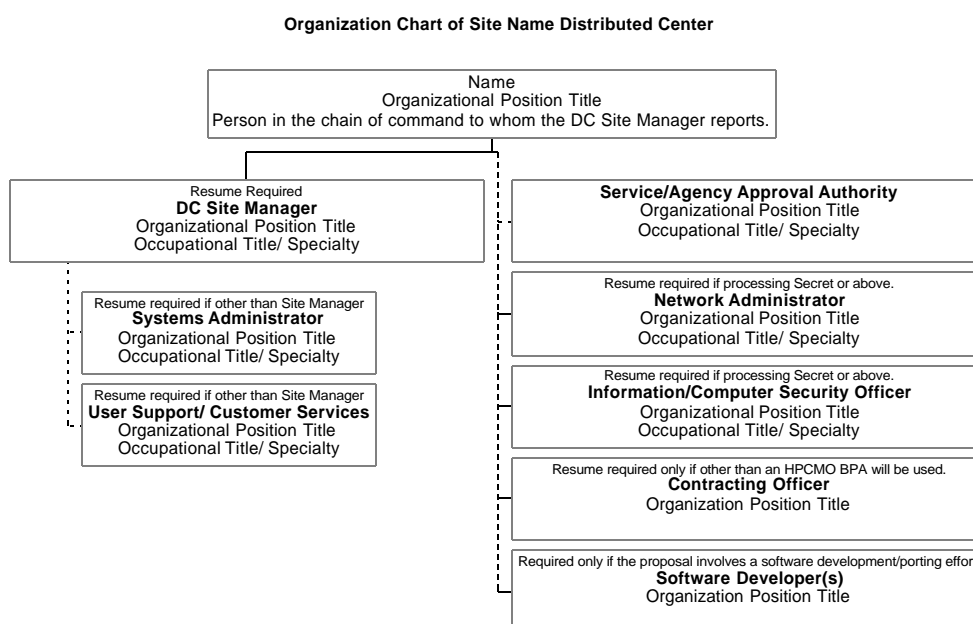
	Title:	
	Description:	
	Metric:	
	The measure is:	
	The target is:	
	Data Source:	
	Report Frequency:	

Measure 5 - Responsiveness to HPCMP requirements. (Managerial and Operational Requirements Criterion 8, Table 1 and HPCMO/Site Terms of Reference)

	Title:	
	Description:	
	Metric:	
	The measure is:	
	The target is:	
	Data Source:	
	Report Frequency:	

Distributed Center Organization and Resumes of Key Personnel Format
Proposed Organization and Resumes of Key Personnel
for
Site Name

Insert a chart depicting the proposed organizational structure of the new or existing distributed center. Show only one supervisory layer above the distributed center manager.



Include a **one-page resume** for the DC Site Manager. A resume is required for the Systems Administrator and the User Support/ Customer Services staff member if individuals other than the Site Manager will serve those functions. Resumes for the Network Administrator and Information/ Computer Security Officer are required only if the systems will be processing at a Secret or higher level. A resume for the Contracting Officer is required only if the site intends to procure the systems by acquisition vehicles other than the HPCMO Blanket Purchase Agreement(s) (BPA). The Software Developers' resumes are required only if the planned projects' use of the system to be acquired under the proposal entail a software development or porting effort.

The information included in each resume should be tailored to show how well the individual is suited for the position he/she is expected to fill in support of the distributed center.

Proposal Package Checklist



Task or Document



FY2001 Requirements Input and Validation

Ensure all high performance computing projects in support of the proposal are entered into the HPCMP Requirements Database. Follow-up to ensure that the requirements were validated by the Service/Agency. Ms. Cathy McDonald, mcdonald@hpcmo.hpc.mil, is the HPCMO point of contact concerning the requirements gathering and validation process.



FY 2002 Call Parameters

<\$4M, one year funding of HPC requirement



Service/Agency Prioritization

Proposals must be endorsed and prioritized by the appropriate Service or Agency Executive. They may not be sent directly from sites to the HPCMO.



Memorandum of Commitment



Summary Sheet



Proposal



Quotes and Special Considerations

For other than HPCMP BPA acquisitions provide copy of all quotes and special considerations as attachments to your proposal. See attachment 1, paragraph 4c(5)(e).



Requirements Analysis and Analysis of Alternatives



Proposed Performance Metrics



Center Organization and Resumes of Key Personnel